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Northfleet Urban District Council.



ANNUAL REPORT

OF THE

Medical Officer of Health

For the Year 1937.

BY

M. F. McDONNELL, M.B., B.Ch., B.A.O., D.P.H.,

Medical Officer of Health.

Northfleet Urban District Council

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M. F. McDONNELL, M.B., B.Ch., B.A.O., D.P.H.,
Medical Officer of Health.

GRAVESEND ;
GRAVESEND AND DARTFORD REPORTER.

Northfleet Urban District Council.

HEALTH COMMITTEE.

Chairman :

MR. GEORGE GOUGE, J.P., C.C.

MR. JAMES CARLTON
MR. WILLIAM H. HARDY
MR. JAMES HAYNES
MR. FRANK WALTER HUMPHREY
MRS. G. S. LANE
MR. GEORGE R. STREET

MATERNITY AND CHILD WELFARE COMMITTEE.

All members of the Health Committee, together with the following co-opted Members:—

MESDAMES DENT, A. H. HARDY, HUMPHREY,
HUNTLEY, SMITH, WESTCOTT, WHITCHELO and
WHITE.

Clerk and Solicitor :

MR. F. W. JONES

Assistant Clerk :

MR. W. G. FUTCHER

Medical Officer of Health :

M. F. McDONNELL, M.B., B.Ch., B.A.O., D.P.H.

Maternity and Child Welfare Officer :

JAMES CRAWFORD, M.B., Ch.B.

Sanitary Inspectors :

G. CUNLIFFE, M.S.I.A., C.R.S.I., Meat and Food Inspector,
C.A.G.S. (1st Class).

E. H. C. WADHAMS, M.S.I.A., C.R.S.I. Meat and Food Inspector

Health Visitor :

MISS E. A. COOPER, C.M.B. (Retired February, 1937)

MISS M. P. MULLENDER, S.R.N., S.C.M., Cert. R.S.I.
(Appointed June, 1937)

THE URBAN DISTRICT OF NORTHFLEET.

Report of the Medical Officer of Health for the Year 1937.

To the Chairman and Members of the
Northfleet Urban District Council.

MADAM AND GENTLEMEN,

I have the honour to submit for your consideration my Annual Report of the Sanitary Circumstances of the District for the year ended December, 1937.

The contents and arrangement are based on the Memorandum issued by the Ministry of Health.

The Report of the Chief Sanitary Inspector, under Article 19 of the Sanitary Officers' Order, 1926, is embodied in this Report.

I am indebted to Mr. Gough, the Vaccination Officer for the Northfleet sub-district, for the Vaccination Report.

I would take this opportunity of thanking the Council for continued interest and support.

Your obedient Servant,
M. F. McDONNELL,
Medical Officer of Health.

Council Offices,
Northfleet, Kent.
May, 1938.

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ANNUAL REPORT.

Statistics and Social Conditions of the Area.

Area (as constituted at 30th June, 1935) acres	...	3,770
Population (Census 1931)	... ..	16,223
(Estimated 1937)	... ..	17,930
Number of Inhabited houses (31st March, 1937)	...	4,950
„ „ New houses erected year ended 31st December, 1937	... ..	52
Number of families or separate occupiers (1931)	...	3,723
Rateable value 31st December, 1937	... ..	£104,184
Sum represented by a penny rate (1937)	... ..	£421

The issue of a special series of supplementary County Census Volumes is due to the fact that under the operation of the Local Government Act of 1929 the area and boundaries of all Boroughs, Urban Districts, Rural Districts and Civil Parishes in the country are undergoing a comprehensive review and that, in consequence, a large number of them will be subject to substantial rearrangement within a few years of the census date.

In the case of Kent Administrative County, the changes set in motion by the 1929 Act were put into operation by the Kent Review Order, 1934 (Ministry of Health Order No. 78186), which came into effect on the 1st April, 1934, and the County of Kent Review Order, 1935 (Ministry of Health Order No. 79448) which came into effect on the 1st April, 1935, and the present volume shows the position as a result of the changes of area under these Orders, the Ministry of Health Provisional Order Confirmation (Maidstone Extension) Act, 1932, and the Canterbury Extension Act, 1933. There has been no other change of boundary affecting the County between the date of the Census and the 30th June, 1935.

Tables A and B are designed primarily with a view to identifying the changes themselves, while tables C, D and E consist of a re-statement of the principal census facts in respect of the changed conditions, statistics of unchanged areas being repeated in tables C and D for convenience of general reference. It is to be observed that the statistics themselves refer in all cases to the population enumerated on the 26th April, 1931, though the areas for which they are given are those as existing and as constituted on the 30th June, 1935.

General descriptions, definitions, reservations, etc., set out in the tables or textual commentary of Part I of the County Volume apply, *mutatis mutandis*, to the figures now presented.

AREAS, WHICH HAVE BEEN ALTERED BETWEEN 26TH APRIL, 1931, AND 30TH JUNE, 1935, SHOWING CONSTITUTIONS AS AT THE LATTER DATE IN TERMS OF CONSTITUTIONS AS AT THE FORMER DATE, TOGETHER WITH PARTICULARS OF ACREAGE AND POPULATION.

A	B	C	D	E	F	G
Reference to Authority.	Existing Area i.e. as constituted at 30th June, 1935:	Composition of Existing Area in terms of areas as as constituted at 26th April, 1931	Acreage (Land and Inland Water).	Population		Existing Areas in which the balance (if any) of 1931 Area is named in col. "c" is now situated.
				1921.	1931.	
D	Northfleet U.D. Northfleet C.P.	Northfleet U.D. (part) Northfleet C.P. (part)	3,770 3,770	15,571 15,571	16,225 16,223	{ Gravesend M.B. and Strood R.D.

PHYSICAL FEATURES, GENERAL CHARACTER AND SOCIAL CONDITIONS OF THE DISTRICT.

The District is situated wholly in the County of Kent, some 20 miles from London, and occupies an area of 3,770 acres.

It is bounded on the North side by the River Thames, on the South by the Rural District of Strood and the Rural District of Dartford, on the East by the Borough of Gravesend, and on the West by the Urban District of Swanscombe.

The surface of the District is undulating or hilly. The soil is gravel, sand, Thanet sand, brick earth, alluvial and London clay.

The sub-soil is chalk. This formation underlies practically the whole of the District.

The principal industries are the manufacture of cement and paper, and cable works.

Average numbers of persons employed is as follows :—

A.P.C.M. (Bevan's Works)	...	...	...	910
Bowater's Paper Mills	...	...	...	834
Henley's Cable Works	...	...	...	1,993
Amalgamated Press, Ltd.	...	...	...	662
Britannia Lead Works	...	...	...	57
Gravesend Welding & Electrical Engineering Works				46

In the Rural parts, market gardening and general agricultural work is the chief employment.

Extent of Unemployment.

The average number of persons unemployed in the area is 285, which is less than 2% of the population and compares very favourably with similar districts in the Country. As the number of insured persons actually resident in Northfleet is not available at the local Ministry of Labour Exchange it is not possible to give the percentage of actual workers unemployed.

Average weekly number of persons in receipt of Outdoor Relief during the year ended 31st March, 1938					190
Amount paid in Outdoor Relief year ended 31st March, 1938					£5,421 18s. od.
Number of Northfleet persons admitted to the Public Assistance Institutions, during the year ended 31st March, 1938					52

Vital Statistics of the District.

BIRTH RATE. During the year there were 313 births, equivalent to an annual birth rate of 17.5 per 1,000 of the estimated population. This is a decrease of 1.3 per 1,000 on last year.

INFANT MORTALITY. 16 deaths occurred among children under one year of age, which is equivalent to 51 per 1,000 births, as against 58 for the whole country.

STILLBIRTHS. Male 3, Female 8, Total 11. Rate per 1,000 live births, 35.

DEATH RATE. The general death rate per 1,000 of the estimated population is 11.0, which can be considered satisfactory.

*The numbers of live births, stillbirths and deaths are those Registered (but excluding re-registrations) during the calendar year (*i.e.* 1st January—31st December, inclusive) adjusted only for inward and outward transfers. They will differ, therefore, from unadjusted figures compiled locally either for the calendar year or for a period of fifty-two weeks.

*The deaths are classified under the headings given in the Abridged List of Causes, as used in England and Wales and Northern Ireland (see page xxiv of the Manual of the International List of Causes of Death—1931). The attention of Medical Officers is drawn to the “ Rules for the selection of one from two or more jointly stated causes of death ” which appears on page xxviii of the Manual. The classification of some deaths is modified in the light of fuller information obtained from the certifying practitioner in response to special enquiries, the principal subjects of these enquiries being indicated in a table published in the annual reports of the Registrar-General. This possible source of discrepancy between the returns of the Registrar-General and those compiled locally should be borne in mind particularly in regard to the causes of death dealt with in that table.

		Total.	M.	F.	
Live	Legitimate	309	154	155	Birth Rate per 1,000 of the estimated resident population, 17.5
	Illegitimate	4	1	3	
Stillbirths	...	11	3	8	Rate per 1,000 total (live and still) births 34
Deaths	...	198	105	93	Death Rate per 1,000 of the estimated resident population, 11.0

Deaths from puerperal causes (Headings 29 and 30 of the Registrar-General's Short List :—

	Deaths.	Rate per 1,000 total (live and still) births.
No. 29 Puerperal sepsis	1	3.09
No. 30 Other puerperal causes	1	3.09
Total	2	6.17

*General Register Office, Somerset House.

Death Rate of Infants under one year of age :—

All infants per 1,000 live births	...	...	51
Legitimate infants per 1,000 legitimate live births	...	...	51
Illegitimate infants per 1,000 illegitimate live births	...	...	0
Deaths from Cancer (all ages)	...	...	25
„ Measles (all ages)	...	...	1
„ Whooping Cough (all ages)	...	...	0
„ Diarrhoea (under 2 years of age)	...	...	2

S.D. 55.

Birth-rates, Death-rates, Analysis) England and Wales, London,
 of Mortality, Maternal Death-rates,) 122 Great Towns and 148
 and Case-rates for certain Infectious) Smaller Towns.
 Diseases in the year 1937.)

(Provisional Figures based on Weekly and Quarterly Returns)

	England and Wales.	125 County Boro's. and Great Towns including London.	148 Smaller Towns (Resident Populations 25,000 to 50,000 at 1931 Census).	London Adminis- trative County.
Rates per 1,000 Population.				
BIRTHS :—				
Live	14.9	14.9	15.3	13.3
Still	0.60	0.67	0.64	0.54
DEATHS :—				
All Causes ...	12.4	12.5	11.9	12.3
Typhoid and Para- typhoid fevers ...	0.00	0.01	0.00	0.00
Smallpox ...	—	—	—	—
Measles ...	0.02	0.03	0.02	0.01
Scarlet fever ...	0.01	0.01	0.01	0.01
Whooping Cough	0.04	0.04	0.03	0.06
Diphtheria ...	0.07	0.08	0.05	0.05
Influenza ...	0.45	0.39	0.42	0.38
Violence ...	0.54	0.45	0.42	0.51
NOTIFICATIONS :				
Smallpox ...	—	—	—	—
Scarlet fever ...	2.33	2.56	2.42	2.09
Diphtheria ...	1.49	1.81	1.38	1.93
Enteric fever ...	0.05	0.06	0.04	0.05
Erysipelas ...	0.37	0.43	0.34	0.44
Pneumonia ...	1.36	1.58	1.20	1.18
Rates per 1,000 Live Births.				
Deaths under 1 year of age	58	62	55	60
Deaths from Diarr- hoea and Enteritis under 2 years of age	5.8	7.9	3.2	12.0
MATERNAL MORTALITY :—				
Puerperal Sepsis ...	0.97	) Not available		
Others	2.26			
Total	3.23			
Rates per 1,000 Total Births (<i>i.e.</i> , Live and Still).				
MATERNAL MORTALITY :—				
Puerperal Sepsis ...	0.94	) Not available		
Others	2.17			
Total	3.11			
NOTIFICATIONS :—				
Puerperal fever ... }	13.93	17.59	11.52	4.15
Puerperal pyrexia }				14.34

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Midwives.

This service is under the control of the County Council.

Maternity and Child Welfare.

The work at the Centre continues very usefully and efficiently. The average weekly attendance at the Centre has been 114. Up to December 31st, 1937, 2673 children have attended the Centre. The total attendances of children during the year were 2,822. There were 226 new attendances. 3,921 lbs. of dried milk and 60 quarts of liquid milk were distributed free. It is found that young mothers are becoming more aware of the benefits of attending such a Centre and are taking advantage of the facilities offered.

The Centre is open on three days of the week, on two of which the Medical Officer attends with the Health Visitor and on the third the latter attends alone for the sale of milk. The Health Visitor, who is a fully trained nurse as well as a certified midwife, also attends the Ante-Natal Clinic.

Maternity and Child Welfare Centre.

Particulars of attendances, amounts of milk distributed free, etc.,
1931-1937.

	Attendances.		Distribution of Milk (free of charge).		
	M. & C.W. Clinic.		Ante-Natal Clinic.		
	Yearly Attendance	Average weekly Attendance	Yearly Attendance	Dried Milk.	Liquid Milk
1931	2,873	55.4	51	2,028 lbs.	Nil
1932	3,272	63.8	65	2,293 lbs.	238 quarts
1933	3,601	69.2	61	2,792 lbs.	Nil
1934	3,640	70.0	30	2,620 lbs.	Nil
1935	4,524	87.0	38	3,500 lbs.	Nil
1936	5,356	103.0	34	3,550 lbs.	Nil
1937	5,941	114.0	64	3,921 lbs.	60 quarts.

Infant Welfare Centres.

- (a) Number of Centres provided and maintained by the Council 1
- (b) Number of Centres provided and maintained by Voluntary Associations Nil.

(c)	Total number of attendances at all Centres during the year :—		
	(i) By children under 1 year of age	...	2108
	(ii) By children between the ages of 1 and 5 years		714
(d)	Total number of children who attended at the Centres for the first time during the year and who, on the date of their first attendance, were :—		
	(i) Under 1 year of age	... ..	198
	(ii) Between the ages of 1 and 5 years	...	28
(e)	Total number of children who attended at the Centres during the year and who, at the end of the year, were :		
	(i) Under 1 year of age	... ..	163
	(ii) Between the ages of 1 and 5 years	...	139
(f)	Percentage of notified live births represented by the number in (d) (i)	... ..	63.8

Ante-Natal Clinic.

(a)	Number of Clinics provided and maintained by the Council	... ..	1
(b)	Number of Clinics provided and maintained by Voluntary Associations	... ..	Nil.
(c)	Total number of attendances by expectant mothers at all Clinics during the year	... ..	49
(d)	Total number of expectant mothers who attended at the Clinics during the year	... ..	19
(e)	Percentage of total notified births (live and still) represented by the number in (d)	... ..	6.0

Toddlers' Clinic.

As previously reported, the Health Visitor is making regular visits to the homes and every effort is made to persuade the mothers to bring the toddlers periodically to the clinic for examination by the doctor. If the attendances warrant the formation of toddlers' clinics, I recommend that special sessions should be held.

Day Nurseries.

Careful enquiries have been made amongst the married women in the district and the evidence obtained pointed to the fact that very few of these women were engaged in occupations away from home (factory hands, field workers or domestic servants) which would warrant the formation of day nurseries. Enquiries have also been made as to suitable accommodation, but no proper premises are available. The expense involved—rent, rates and taxes; the provision of a trained nurse; feeding the children, etc.; heating and lighting—would be very heavy. Considering these factors, I think that the cost would not be commensurate with the gain to the public health service of the district. In conclusion, I have to state that whilst I am in sympathy with the views expressed in Circular 1550 of the Ministry of Health, I am of the opinion that the need for the formation of day nurseries does not exist in the Northfleet Urban District for the time being.

Nutrition.

Supply of Milk, etc.—Dried milk, cod liver oil, “ Virol ” and other foods are supplied by the Council to expectant and nursing mothers and to children under school age.

Within reason no restriction is placed on the quantity supplied in any one case and the supply is not limited to any specific period of pregnancy nor to any age of children below school age.

The commodities are supplied free of charge where the income is not in excess of the scale approved some years ago by the Ministry; the scale is as follows :—

No. in Family.	For supply of milk free of cost. Total income of family after deducting rent.	For a supply of milk at one third cost price. Total income of family after de- ducting rent.
		Where only one parent alive.
	s. d.	s. d. s. d.
I ... ,	9 0 ...	10 0 10 0
2 ...	18 0 ...	20 0 18 0
3 ...	25 0 ...	28 0 26 0
4 ...	32 0 ...	36 0 34 0
5 ...	38 11 ...	44 0 42 0
6 ...	46 0 ...	52 0 50 0
7 ...	52 6 ...	60 0 58 0
8 ...	59 4 ...	68 0 66 0
9 ...	66 0 ...	76 0 74 0
10 ...	72 6 ...	84 0 82 0

For the purpose of comparison, the following is the scale adopted by the Kent County Council in connection with the operation of the Midwives Act, 1936 :—

No. in Family.	Total income of family after deducting rent, rates, taxes, life insurance, contributions to friendly societies and abnormal expenses.					
					s. d.	
1	15 0	
2	26 0	
3	31 6	
4	36 0	
5	42 6	
6	48 0	
7	52 6	
8	56 0	
9	58 6	
over 9	6 6	per head.

On the basis of " income per head " the two scales compare as follows :—

No. in Family.		Northfleet Scale.		County Scale.	
		s.	d.	s.	d.
1	...	9	0	15	0
2	...	9	0	13	0
3	...	8	4	10	6
4	...	8	0	9	0
5	...	7	9	8	6
6	...	7	8	8	0
7	...	7	6	7	6
8	...	7	5	7	0
9	...	7	4	6	6
over 9	...	7	3	6	6

It will be seen that the Northfleet scale is more generous as regards families below seven in number and less generous as regards the larger families.

Liquid milk has not been supplied in recent years, but liquid pasteurised milk is now supplied, at the discretion of the Child Welfare Officer, more particularly to expectant mothers. Orders are issued on local purveyors to deliver milk for such periods as may be deemed necessary or desirable.

Meals.—The Minister of Health has suggested that the Council should consider afresh the question of organising arrangements for the supply of meals to mothers and children.

I am of opinion that the scarcity of cases requiring such assistance in the district does not warrant the organisation of such arrangements.

Finance.—The Minister of Health has stated that in some areas authorities may have hesitated on grounds of financial stringency to develop their services as fully as they might desire.

I believe it is correct to state that the Council has never hesitated to extend its maternity and child welfare service on the ground of economy.

Maternity and Nursing Homes.

There are no Maternity or Nursing Homes in the area under the control of the Council.

Nursing in the Home.

Through the Northfleet Diamond Jubilee Samaritan Fund, the services of one trained nurse are available for general nursing. The Fund is an entirely voluntary organisation.

Maternal Mortality.

The County Medical Officer of Health co-operates with me in undertaking any necessary investigations in connection with maternal deaths.

The following arrangements have been made by the Council :—

- (1) Difficult cases of labour are admitted to the Gravesend and North Kent Hospital.
- (2) Cases of Puerperal Sepsis are admitted to the King Edward Hospital, Dartford.
- (3) Consultant Gynecologist available if required.
- (4) Ante-natal and other clinics provided by the Council.

These are sufficient for the needs of the district.

The following is an extract of a report upon this subject submitted to the Council by the Maternity and Child Welfare Officer and myself :—

“The Circular dealing with this subject draws the attention of the Council to the Report on Maternal Mortality presented to Parliament in the early part of the year.

The Report stresses the importance of close co-operation and “team work” in all maternity work in the Authority’s area and we are pleased to be able to report that the ready co-operation of local medical practitioners already exists and we are confident that it will be continued.

Further, admirable facilities are afforded by the Gravesend Hospital.

CONSULTANT SPECIALIST.—The Council already have an arrangement whereby the services of a consultant specialist are available in cases of necessity but it has been found that, in view of hospital facilities, his services are very rarely required.

EMERGENCY UNITS.—With reference to the recommendation in the Report that arrangements should be made for the services of skilled hospital staff to be available to attend at the home of a patient in an emergency, we recommend that negotiations be entered into with the Gravesend Hospital with the object of coming to some arrangement with them to put this into operation.

MATERNITY ACCOMMODATION.—The Council’s agreement with the Gravesend Hospital for the admission and treatment of difficult cases is eminently satisfactory and full use is made of the facilities provided.

Satisfactory arrangements have also been made for the treatment of cases of puerperal sepsis at the Dartford Hospital under agreement with the Kent County Council.

ANTE-NATAL SERVICES AND CONSULTANT.—The Council have established an ante-natal clinic but attendances, despite every encouragement, do not reach the standard which the service deserves.

The Maternity and Child Welfare Officer, where necessary, arranges for the admission of cases to hospital.

POST NATAL SERVICES.—In the course of her duties the Health Visitor advises any mother who is not progressing satisfactorily to attend for post natal examination.

Such cases are examined at the ante-natal session and the number does not warrant the institution of separate sessions.

Ancillary Services :—

HOME HELPS.—In our opinion the nature of the population of your district does not warrant the establishment of a service of home helps.

DENTAL TREATMENT.—It will be remembered that the Council have entered into an agreement with the Kent Education Committee for the utilisation of their dental service for the treatment of expectant and nursing mothers and children under school age.

RECORDS.—The Report emphasises the importance of adequate records. The records maintained in relation to the Council's maternity and child welfare services are satisfactory in every respect and are at the disposal of any medical practitioner who may desire to consult them with reference to any particular case."

Public Health Staff.

Medical Officer of Health, one whole time (M.B., B.Ch., B.A.O., D.P.H.).

The other duties of the M.O.H. are as follows :—(1) Medical Superintendent Strood Isolation Hospital. (2) District Medical Officer for Northfleet District. (3) Public Vaccinator for Northfleet. (4) Medical Officer of Health, Strood Rural District.

Sanitary Inspectors.

Two.—Chief Sanitary Inspector—holds the Royal Sanitary Institute's Certificates as Sanitary Inspector and Inspector of Meat and Other Foods. Holds Home Office 1st class Certificate as Instructor in Air Raid Precautions.

Additional Sanitary Inspector—Certified Sanitary Inspector by examination of the Royal Sanitary Institute and Sanitary Inspector's Examination Joint Board. Holds Royal Sanitary Institute's Certificate as Inspector of Meat and Other Foods.

The Sanitary Inspectors also carry out the following duties :—

Administration and supervision of the house refuse collection and disposal, street cleansing and gully emptying services.

Health Visitor : Miss M. P. Mullender, S.R.N., S.C.M.
Holds Royal Sanitary Institute's Certificate as Health Visitor.

Maternity and Child Welfare Officer:—

James Crawford, M.B., Ch.B.

Children Act, 1908, Part 1—Section 2 (a) of the Local Government Act, 1929.

The Health Visitor visits the children regularly and keeps the requisite register. At present there are four names on the register. All the homes have been found satisfactory.

Hospitals.

GRAVESEND AND NORTH KENT HOSPITAL, GRAVESEND, serves the District, and contains 109 beds and 9 cots.

Day and Time of Attendance for Registration at
Out-Patient Department.

Monday	10.30 a.m.	...	Ear, Nose and Throat.
	2.0 p.m.	...	Fracture Clinic.
Tuesday	9.0 a.m.	...	General Surgical.
	2.45 p.m.	...	Ante-Natal and Gynaecological.
Wednesday	10.0 a.m.	...	Fracture Clinic.
Thursday	8.30 a.m.	...	Dental.
	8.30 a.m.	...	Ophthalmic.
Friday	8.30 a.m.	...	Dental
	10.30 a.m.	...	Fracture Clinic.
	11.45 a.m.	...	Massage and Electro-Medical.
	12 noon	...	C.O. 2 Clinic.
	1.30 p.m.	...	Orthopaedic.
Saturday	10.30 a.m.	...	Medical Out-patients.

MEDWAY INSTITUTION, CHATHAM. This Institution has the following number of beds:—Tuberculosis, 38; children (including 12 maternity cots), 24; maternity, 12; general, 409—total, 483.

PUBLIC ASSISTANCE INSTITUTION, GRAVESEND. Has 72 beds, including two for maternity cases.

ST. BARTHOLOMEW'S HOSPITAL, NEW ROAD, ROCHESTER. This is a Voluntary General Hospital, and serves a large area with a population of over 200,000.

Monday	9.0 a.m.	...	General Out-patients.
	9.0 a.m.	...	Dental.
	1.30 p.m.	...	Medical.
Tuesday	9.0 a.m.	...	General Out-patients.
	10.30 a.m.	...	Ear, Nose and Throat.
	1.30 p.m.	...	Medical and Surgical.
Wednesday	9.0 a.m.	...	General Out-patients.
	1.30 p.m.	...	Eyes.

Thursday	9.0 a.m.	...	General Out-patients.
	9.0 a.m.	...	Dental.
	10.0 a.m.	...	Orthopaedic.
	1.30 p.m.	...	Medical.
Friday	9.0 a.m.	...	General Out-patients.
	1.30 p.m.	...	Surgical and Medical.
	2.30 p.m.	...	Children.

KING EDWARD HOSPITAL, DARTFORD. No. of beds, 639 ; maternity, 6 ; tuberculosis, 20.

TUBERCULOSIS. The treatment of Tuberculosis is undertaken by the County Council, and suitable cases from this district are admitted to their sanatoria as occasion demands. There is no sanatorium for Tuberculosis situated in the district.

Hospital and other forms of gratuitous Medical Relief are utilized to the utmost extent in the District.

Isolation Hospital.

The Strood Isolation Hospital occupies an area of six acres and consists of four blocks—three brick and one corrugated iron. These blocks are 40 feet from each other and from the boundary fence. There are six large and five small wards, and they contain 36 beds (allowing 144 sq. feet of floor per bed).

The administrative accommodation consists of a Matron, a Staff Nurse, and three Nurses. Domestic Staff is four women and one man.

The other offices are a hand laundry, which is sufficient for the wants of the Hospital ; a disinfection station contains a Thresh Disinfector and garage for Motor Ambulance.

Sewage Disposal.—Administration Block and Wards to Cesspool.

Heating is provided for by fires in each Ward. Lighting by electricity, and water is supplied by the Higham and Hundred of Hoo Water Co.

The accommodation for Scarlet Fever, Diphtheria and Enteric is sufficient for the wants of the District.

Details of Wards.

The available accommodation is as follows :—

		Dimensions.		Floor Space.
		Length.	Breadth.	Approx.
Diphtheria Block	Male	26' 4"	23' 6"	624 sq. ft.
	Female	26' 4"	23' 6"	624 „
	4 Small	12' 6"	11' 6"	576 „
Scarlet Fever Block	Male	26' 4"	23' 6"	624 „
	Female	26' 4"	23' 6"	624 „
	4 Small	12' 6"	11' 6"	576 „
Enteric Block	Male	29' 10"	19' 6"	580 „
	Female	29' 10"	19' 6"	580 „
	3 Small	13' 0"	9' 3"	363 „

This gives us a total floor space of 5,171 square feet or accommodation for 36 patients allowing each bed 144 square feet of floor space.

Following the adjustment of boundaries, which took place last March, the population of the combined districts served by the hospital will be less than 36,000. This gives us the correct number of beds as laid down by the Ministry of Health, *i.e.*, 1 per 1,000 of population.

Sanitary Districts from which patients are admitted :—

Name of District.	Population (1937).
Strood Rural 	17,490
Northfleet Urban (1937) 	17,930
Occasionally other districts	35,420

The next Table shows the number of cases of each disease treated in the Hospital for the past eight years :—(Northfleet)

	1930		1931		1932		1933		1934		1935		1936		1937	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Scarlet Fever	9	...	6	...	2	...	7	...	15	...	10	...	18	...	14	...
Diphtheria	5	1	4	...	4	1	5	1	4	...	3	1	...	...	3	...
Typhoid Fever	7	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Other Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
	21	2	10	Nil.	6	1	12	1	20	Nil.	13	1	18	Nil	19	1

Ambulance Facilities.

A Motor Ambulance is provided by the Strood Rural Council for the removal of infectious cases. Ambulance facilities are also provided by the St. John Ambulance for non-infectious and accident cases.

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES.

The following is a list of the diseases which have to be notified to the Medical Officer of Health :—

(1) Small-pox. (2) Scarlet Fever. (3) Diphtheria, including Membranous Croup. (4) Enteric Fever (Typhoid and Paratyphoid). (5) Pneumonia. (6) Cholera. (7) Plague. (8) Cerebro-spinal Fever. (9) Acute Poliomyelitis. (10) Acute Polioencephalitis. (11) Encephalitis Lethargica. (12) Typhus Fever. (13) Relapsing Fever. (14) Dysentery. (15) Ophthalmia Neonatorum. (16) Puerperal Pyrexia (17) Erysipelas. (18) Tuberculosis, primary notifications only. Respiratory, other forms. (19) Malaria (believed to be contracted in this country, believed to be contracted abroad, induced in institutions).

Infectious Disease.

Cases of infectious disease which cannot be properly isolated at home are removed to the Strood Isolation Hospital under an agreement which the Council has with that Institution. This arrangement continues to prove most satisfactory, both from the point of economy and efficiency. Prompt removal of patients is always carried out by means of a motor ambulance.

Table showing the numbers of cases and deaths from Scarlet Fever, Diphtheria and Enteric Fever since 1930 :—

	Scarlet Fever		Diphtheria		Enteric Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
1930	58	Nil	25	1	6	1
1931	33	Nil	25	1	Nil	Nil
1932	22	1	13	6	Nil	Nil
1933	32	Nil	11	4	Nil	Nil
1934	71	Nil	13	Nil	Nil	Nil.
1935	44	Nil	12	1	1	Nil
1936	39	Nil	Nil	Nil	Nil	Nil
1937	23	Nil	3	Nil	Nil	Nil
Total	322	1	102	13	7	1

Scarlet Fever.

Number of cases notified	...	23
Number of deaths	...	Nil.
Case fatality per cent.	...	Nil.
Number of cases removed to Hospital		14
Percentage of cases removed	...	60.8%

Diphtheria.

Number of cases notified	...	3
Number of deaths	...	Nil.
Case fatality per cent.	...	Nil.
Number of cases removed to Hospital		3
Percentage of cases removed	...	100%

Enteric Fever.

Number of cases notified	...	Nil.
Number of deaths	...	Nil.
Case fatality per cent.	...	Nil.
Number of cases removed to Hospital		Nil.
Percentage of cases removed	...	Nil.

Puerperal Fever and Pyrexia.

Two cases of Puerperal Pyrexia were notified.

An arrangement has been made by means of which cases of Puerperal Fever and Puerperal Pyrexia, which cannot be properly isolated or attended to at home, are admitted to the King Edward Avenue Hospital, Dartford.

Small Pox.

No cases were notified during the year. A few contacts came into the district at intervals, these were kept under observation until the incubation period had expired.

The Council have an arrangement with the Hollingbourn R.D. Council, whereby cases of small-pox occurring in Northfleet would be admitted to the Small-pox Hospital of that Authority.

The emergency hospital in Springhead Road is no longer maintained as such.

Tuberculosis.

For details of cases see special section of Report.

Tuberculosis Dispensary Service.

The services of the tuberculosis officers are available for the purpose of consultation in all cases receiving domiciliary treatment, and, at the request of the medical attendant, a certain number of patients are kept under the supervision of the tuberculosis officers.

There are twenty-two dispensaries in the County. Particulars as to the tuberculosis officer in charge, the address of the dispensary and the hours of attendance are given below. Information is also given as to the additional area allocated to each tuberculosis officer for visitation purposes :—

District No. 1.—Population, approx., 226,583.

(Tuberculosis Officer in Charge, WILLIAM BEARE MARTIN, M.R.C.S.(Eng.),
L.R.C.P.(Lond.), D.P.H.)

	<i>Address.</i>	<i>Day and Time of Opening.</i>	<i>Additional Area for Domiciliary Visitation.</i>
DARTFORD (Tel. No. 3378)	41 Overy Street	Monday, 1.30-3.30 p.m.	Dartford R., Crayford,
Erith	65 Bexley Road	Thursday, 5.30-6.30 p.m.	Swanscombe, Bexley,
		Monday, 5.0-6.0 p.m.	Northfleet and part of
		Thursday, 2.0-4.0 p.m.	Strood R.
Gravesend	22 Cobham Street	Wednesday, 1.0-3.0 p.m.	

District No. 2.—Population, approx. 181,214.

(Tuberculosis Officer in Charge, CHARLES ROPER, B.A.(Camb.), M.D., B.C., D.P.H.)

ROCHESTER (Tel. No. Chatham 2182)	13 New Road	Friday, 9.30-10.30 a.m.	Hoo R., part of Strood R.
		Tuesday, 2.0-3.0 p.m. and 5.0-6.0 p.m.	Chatham, N.E. fringe of Malling R., N.W. fringe of
Gillingham	228 Nelson Road	Tuesday, 9.30-10.30 a.m.	Hollingbourn R., W.
		Friday, 2.0-3.0 p.m. and 4.0-5.0 p.m.	quarter of Milton R., Queenborough and
Sheerness	Granville Villa, Granville Road	Thursday, 11.0 a.m. 1.0 p.m.	Sheppey.

Venereal Diseases.

Amendments have been made in the times of holding the following clinics and they are now as follows :—

GRAVESEND—22, COBHAM STREET.

DAYS AND TIMES OF CONSULTATION.

	<i>Men</i>				<i>Women</i>			
Tuesday	11	a.m.	—	1	p.m.	1	p.m.	— 2.15 p.m.
Thursday	5	p.m.	—	7	p.m.	3	p.m.	— 4.30 p.m.

DAYS AND HOURS FOR IRRIGATION.

	<i>Men</i>				<i>Women</i>			
Monday	6	p.m.	—	7	p.m.	9 a.m.	—	12 noon
						and 1 p.m.	—	5 p.m.
Tuesday	11	a.m.	—	1	p.m.	1 p.m.	—	2.15 p.m.
	and 6	p.m.	—	7	p.m.			
Wednesday	6	p.m.	—	7	p.m.	9 a.m.	—	11.30 a.m.
Thursday	5	p.m.	—	7	p.m.	3 p.m.	—	4.30 p.m.
Friday	6	p.m.	—	7	p.m.	9 a.m.	—	12 noon
						and 1 p.m.	—	5 p.m.
Saturday	1	p.m.	—	2	p.m.	9 a.m.	—	11.30 a.m.

ROCHESTER—36, NEW ROAD.

DAYS AND TIMES OF CONSULTATION.

	<i>Men</i>				<i>Women</i>			
Tuesday	3	p.m.	—	7	p.m.	3	p.m.	— 6.30 p.m.
Thursday	11	a.m.	—	2	p.m.	11	a.m.	— 2 p.m.

DAYS AND HOURS FOR IRRIGATION.

	<i>Men</i>				<i>Women</i>			
Monday	10	a.m.	—	1	p.m.	9	a.m.	— 12 noon
	2	p.m.	—	3	p.m.	1	p.m.	— 4 p.m.
	and 5.30	p.m.	—	8	p.m.			
Tuesday						1	p.m.	— 6.30 p.m.
Wednesday	3	p.m.	—	7	p.m.			
	10	a.m.	—	1	p.m.	9	a.m.	— 12 noon
	2	p.m.	—	3	p.m.	1	p.m.	— 4 p.m.
	and 5.30	p.m.	—	8	p.m.			
Thursday	11	a.m.	—	2	p.m.	9	a.m.	— 2 p.m.
	5.30	p.m.	—	8	p.m.	2	p.m.	— 4 p.m.
						9	a.m.	— 12 noon
Friday	10	a.m.	—	1	p.m.			
	2	p.m.	—	3	p.m.	1	p.m.	— 4 p.m.
	and 7.30	p.m.	—	8.30	p.m.			
Saturday	10	a.m.	—	1	p.m.	9	a.m.	— 12 noon

Treatment of Crippled Children.

The county scheme for the treatment of crippled children includes the provision of eighty beds at the Alexandra Hospital at Swanley, not less than forty-eight being for tuberculous cripples and not more than thirty-two for patients suffering from crippling defects due to other causes. For those children who are of school age education is provided. The whole of these beds are now occupied by Kent patients.

In addition, the following three hospitals have provided a limited number of beds for patients who do not require prolonged institutional treatment, viz. :—

- (a) West Kent General Hospital, Maidstone.
- (b) Kent and Canterbury Hospital, Canterbury.
- (c) King Edward Avenue Hospital, Dartford.

These three hospitals have each established a properly equipped orthopaedic out-patient department, and a complete list of out-patient clinics is set out below :—

Address.	Day and time of Opening.	Orthopaedic Surgeon Attends.	Name of Surgeon.
King Edward Avenue Hospital, Dartford.	First Tuesday in each month at 4.0 p.m., and third Tuesday in each month at 2.30 p.m.	At each opening.	H. E. Batten, Esq., F.R.C.S., L.R.C.P.
*Tuberculosis Dispensary, 41, Overy Street, Dartford.	Ditto. each month at 3.0 p.m.	Ditto.	Ditto.

Address	Day and time of Opening	Orthopaedic Surgeon attends	Name of Surgeon
West Kent General Hospital, Maidstone.	Each Friday. New patients should arrive at the Union Street entrance of the hospital before 10 a.m., if possible. No patient is admitted after 11.15 a.m.	Ditto.	A. H. Todd, Esq., M.S., M.B., B.Sc., F.R.C.S., L.R.C.P.
Dorset House, St. John's Road, Sevenoaks.	Each Monday at 10.30 a.m.	Second and fourth Mondays in each month.	A. L. Moreton, Esq.

*For tuberculous cripples only.

Voluntary Committees of ladies interested in the work, assist at the Ashford, Broadstairs, Sevenoaks and Sheerness Clinics.

Necessary surgical appliances are provided for patients on the recommendation of the orthopaedic surgeons, and X-ray films are taken at various approved institutions. Cases arising for electrical treatment, massage, exercise, etc., receive daily treatment, where necessary, at certain of the clinics, at St. Mary's Convalescent Home, Birchington, or at the homes of the children.

The parents of patients are asked to contribute towards the cost of institutional treatment and surgical appliances, in accordance with their means.

Travelling expenses of patients are met by the Kent County Council in necessitous cases.

The above arrangements apply to:—

- (i) All crippled children under five years of age living in the area in which the County Council is responsible for maternity and child welfare.
- (ii) All children attending schools of the Kent Education Committee.
- (iii) All tuberculous cripples up to sixteen years of age.
- (iv) Children (under five years of age or attending elementary schools) in the following autonomous districts, the Councils of which have arranged to participate in the County scheme :—

Borough of Faversham, Gravesend, Margate, Dartford.
Urban Districts of Ashford, Bexley, Crayford, Milton and Sittingbourne, Northfleet, Sevenoaks, Sheerness.
Rural Districts of Dartford, Milton, Tonbridge.

Cancer.

The number of deaths caused by Cancer during the year under review was 25. Most of the cases occurred amongst elderly folk and no undue prevalence in any particular organ was noted. It was not deemed necessary to advise the Council to take any action to improve the facilities for health instruction, diagnosis or treatment, such as those outlined in Circular 1136 of the 31st July, 1930.

British Empire Cancer Campaign.

The British Empire Cancer Campaign has formed a Committee to stimulate the education of the public on matters concerning

cancer—particularly the early symptoms of the accessible cancers such as the breast, uterus, tongue, etc.

It is considered that the best way of doing this is to form panels of Local Practitioners who will give lectures in their respective districts, for which they will receive a small honorarium. The objects of such lectures will be :—

1. To diminish the present very widespread fear of the disease and
2. To convince people of the importance of early diagnosis and to persuade them to seek medical advice at an early stage of the disease.

Pathological and Bacteriological Specimens.

Pathological and Bacteriological specimens are examined free of charge at the County Laboratory at Maidstone. Full use has been made of these facilities, which are most satisfactory.

Diphtheria anti-toxin is supplied free to Medical Practitioners in the District.

The following are the numbers of the specimens submitted from this district :—

Sputa	...	...	89	Serum	...	...	1
Swabs	...	...	32	Others	...	...	22

DICK AND SCHICK TEST.

No use has been made of either of these Tests during the year.

Verminous Persons.

Facilities for the cleansing and disinfection of persons are available at the Public Assistance Institution at Gravesend.

Disinfection.

All bedding and articles of clothing from houses where cases of infectious disease have occurred are promptly removed to a steam disinfector belonging to the Council. Disinfectants are freely supplied and the room occupied by the patient is disinfected by Formalin Vapour.

Vaccination.

The percentage of babies vaccinated remains high—it is more than 60% of the babies born—and no babies have been vaccinated by the Medical Officer of Health under the Public Health (Small-pox Preventative Regulations,) 1917, during the year.

I am indebted to Mr. Gough, the Vaccination Officer for the sub-division of Northfleet, for the following report :—

NORTHFLEET DISTRICT.

VACCINATION—YEARS 1923-1937.

I beg to submit my Annual Vaccination Report for the Northfleet District.

It will be of interest to note that over a period of fifteen years, an average of 62% of babies born were vaccinated, approximately 50% of these by yourself as Public Vaccinator for the District.

There has been a decrease in the case of parents who object to the vaccination of babies, and Statutory Declarations made in this respect, remain at 32% of the total births registered.

The high percentage of babies vaccinated in your district is therefore maintained.

28
12 1
144

Northfleet District.
Vaccination Return for the Years 1923-1936.

Year.	Births Registered.	Vaccinated by Public Vaccinator.	Vaccinated by Medical Practitioners.	Statutory Declarations made against Vaccination.	Insusceptibility to Vaccination.	Removed from District	Died before Vaccination.	Total.
1923	427	189	84	133	2	10	9	427
1924	447	228	69	124	1	9	16	447
1925	455	219	64	138	1	10	23	455
1926	418	195	73	127	—	6	17	418
1927	417	190	75	128	2	3	19	417
1928	418	191	55	150	1	6	15	418
1929	408	196	64	129	1	4	14	408
1930	353	170	49	110	2	8	14	353
1931	369	174	67	115	1	2	10	369
1932	346	161	43	114	3	5	20	346
1933	409	219	65	106	1	9	9	409
1934	396	194	48	127	—	10	17	396
1935	332	145	38	124	—	18	7	332
1936	284	96	46	124	3	4	11	284
1937	262	116	37	90	—	9	10	262
Totals	5741	2683	877	1839	18	113	211	5741

Percentage Vaccinated and Exempted of Births Registered.

Year.	Total Percentage Vaccinated.	Percentage Vaccinated by Public Vaccinator.	Percentage Vaccinated by Medical Practitioners.	Percentage of Statutory Declarations.
1923	64%	45%	19%	31%
1924	67%	51%	16%	28%
1925	62%	48%	14%	30%
1926	64%	47%	17%	30%
1927	64%	46%	18%	30%
1928	59%	46%	13%	36%
1929	64%	48%	16%	31%
1930	62%	48%	14%	31%
1931	65%	47%	18%	31%
1932	59%	47%	12%	33%
1933	70%	54%	16%	26%
1934	62%	50%	12%	32%
1935	55%	44%	11%	37%
1936	50%	34%	16%	43%
1937	58%	44%	14%	34%
Average	62%	47%	15%	32%

May, 1938.

D. A. GOUGH,
Vaccination Officer, Northfleet, Kent.

NOTIFIABLE DISEASES.

Notifiable Diseases (other than Tuberculosis) during the year 1937.

Disease.	Total Cases Notified	Cases admitted to Hospital	Total Deaths *
Small-pox	Nil.	Nil.	Nil.
Scarlet Fever	23	14	Nil.
Diphtheria	3	3	Nil.
Enteric Fever (including Paratyphoid)	Nil.	Nil.	Nil.
Puerperal Fever	2	1	1
„ Pyrexia	2	Nil.	1
Pneumonia	4	1	11
Erysipelas	1	Nil.	Nil.
Ophthalmia Neonatorum ...	Nil.	Nil.	Nil.
Cerebro-spinal Fever ...	2	2	1
Totals	37	21	14

*R.G. Returns.

	Under 1 year.	1 and under 2 years.	2 and under 3 years.	3 and under 4 years.	4 and under 5 years.	5 and under 7 years.	7 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 35 years.	35 and under 45 years.	45 and under 65 years.	65 and over.	Totals.
Diphtheria	1	...	...	...	...	2	...	...	...	...	3
Scarlet Fever...	2	1	1	3	8	5	...	3	...	...	...	23
Erysipelas	1
Pneumonia	2	2	...	...	4
Puerperal Pyrexia	3	1	...	...	4
Pulmonary M.	3	2	5	...	10
Tuberculosis F.	2	2	1	...	5
Non-Pulm'y M.	1	...	...	...	1	...	...	2
Tuberculosis F.	0
Ophthalmia Neonatorum	0
Enteric Fever...	0
Cerebro-Spinal Fever	1	1	...	...	...	...	2
Totals	0	0	2	2	1	3	9	6	3	13	8	7	0	54

Tuberculosis.

Age Periods	New Cases.				Deaths.†			
	Pulmonary		Non-pulmonary		Pulmonary		Non-pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 year	...	...	...	...	...	...	...	...
1—5	...	...	...	...	...	...	...	...
5—10	...	...	1	...	...	...	1	...
10—15	...	...	...	...	...	...	...	...
15—25	...	...	...	...	1	...	...	...
25—35	3	2	...	...	1	2	...	...
35—45	2	2	1	...	2	...	...	...
45—55	2	1	...	...	...	1	...	...
55—65	3	...	...	...	1	...	...	...
65 up	...	...	...	...	...	...	...	...
Totals ...	10	5	2	0	5	3	1	0

†R.G. Returns.

Public Health (Prevention of Tuberculosis) Regulations, 1925,
Public Health Act, 1925, Section 62.

No action was taken during 1937.

Statement of Particulars appearing in the Register of Notifications
of cases of Tuberculosis, for the Year ended the 31st day of
December, 1937.

	Pulmonary			Non-Pulmonary			Pulmonary and Non- Pulmonary Total
	M.	F.	Total	M.	F.	Total	
(a) Number of cases of Tuberculosis on the Register at the commencement of the Year...	49	32	81	21	14	35	116
(b) Number of cases remaining on the Register at the end of the Year	36	27	63	12	7	19	82

Non-Notifiable Acute Infections.

The district has been comparatively free from Influenza, and the number of deaths due to this disease negligible. Rabies and anthrax were absent.

Foot and Mouth Disease.

No outbreaks were reported during the year.

Causes of Death in Northfleet Urban District, 1937.

CAUSES OF DEATH			M.	F.
All Causes	...	...	105	93
1 Typhoid and paratyphoid fevers	...	...	...	...
2 Measles	...	...	1	...
3 Scarlet fever	...	...	...	...
4 Whooping cough	...	...	...	...
5 Diphtheria	...	...	...	...
6 Influenza	...	...	3	4
7 Encephalitis lethargica	...	...	...	...
8 Cerebro-spinal fever	...	...	1	...
9 Tuberculosis of respiratory system	...	...	5	3
10 Other Tuberculous	...	...	1	...
11 Syphilis	...	...	...	...
12 General paralysis of the insane, tabes dorsalis	...	...	...	...
13 Cancer	...	...	14	11
14 Diabetes	...	...	2	1
15 Cerebral haemorrhage, etc.	...	...	2	3
16 Heart disease	...	...	25	38
17 Aneurysm	...	...	2	...
18 Other circulatory diseases	...	...	3	4
19 Bronchitis	...	...	7	2
20 Pneumonia	...	...	8	3
21 Other respiratory diseases	...	...	1	2
22 Peptic ulcer	...	...	3	...
23 Diarrhoea, etc. (under 2 years)	...	...	1	1
24 Appendicitis	...	...	1	1
25 Cirrhosis of liver	...	...	...	...
26 Other diseases of liver, etc.	...	...	...	1
27 Other digestive	...	...	2	1
28 Nephritis	...	...	1	...
29 Puerperal sepsis	...	...	...	1
30 Other puerperal causes	...	...	...	1
31 Congenital causes, etc.	...	...	5	2
32 Senility	...	...	1	3
33 Suicide	...	...	2	...
34 Other violence...	...	...	5	3
35 Other defined diseases...	...	...	...	...
36 Causes ill-defined or unknown	...	...	...	...

CAUSES OF DEATH		M.	F.
Special Causes (included in No. 35 above)			
Small-pox	...	...	...
Poliomyelitis	...	...	...
Polioencephalitis	...	...	...
Deaths of Infants under 1 year	<div> Total ... </div> <div> Legitimate ... </div> <div> Illegitimate ... </div>	10 10 0	6 6 0
Live Births	<div> Total ... </div> <div> Legitimate ... </div> <div> Illegitimate ... </div>	155 154 1	158 155 3
Stillbirths	<div> Total ... </div> <div> Legitimate ... </div> <div> Illegitimate ... </div>	3 3 ...	8 8 ...
Population	...	...	17,930

SANITARY CIRCUMSTANCES OF THE AREA.

Water Supply.

An ample and continuous supply is given by the Gravesend Water Company, from a well sunk in the deep chalk which is situated in the Northfleet district. I am informed that there is an ample supply and that there is no likelihood of any shortage. There is also a good reserve in the well at Windmill Hill.

The quarterly analysis shows that the water is pure and free from pollution.

Reservoirs.

Gravesend & Milton ... One 800,000 galls. at Gravesend.
 One 220,000 galls. at Northfleet.
 One 100,000 galls. at Northfleet.

Particulars as to resources of and demand on Water Undertakings in Area :—

1. (a)	No. of dwelling houses in district as at 29th Sept., 1937	5,020
(b)	No. of other premises in district as at 29th Sept., 1936	116
(c)	Total	5,136

Public Analyst's Report on Water Samples.—(Copy).

Description of Sample.	Gravesend & Milton.			
Date of Collection	30-11-37
Total Solid Residue	38.0
Chlorine	1.7
Free Ammonia	0.0
Albuminoid Ammonia	0.0
Nitrogen as Nitrates	0.4
Oxygen absorbed $\frac{1}{4}$ -hr. at 80° F.	0.010
Oxygen absorbed 4-hrs. at 80° F.	0.017
Nitrites	Absent

Remarks to above.—This Water is of excellent organic quality

Signed. F. W. F. ARNAUD, F.C.I.,

Public Analyst for the County of Kent.

Bacteriological Examination.

The bacteriological examination shows us the actual types and numbers of the various bacteria present and since a water, which might be passed as safe for drinking purposes on chemical data, may contain evidence of sewage pollution from the number and kind of bacteria in it, such an examination is of great value.

In practice the information usually required is whether the water is of sufficient bacterial purity or whether a water known to be more or less impure is being efficiently treated to render it

fit for drinking purposes. Treatment consists of either storage, filtration, chlorination or ozonization. To this must be added a type of biological treatment in which protozoa inimical to bacteria are used, but this is not yet well known in this country and treatment by the other processes, either alone or in combination, is the usual procedure.

The various technical procedures carried out in a bacteriological examination usually include (1) a count of micro-organisms developing at a temperature of 22 deg. C. or ordinary standard gelatine or agar during three days' incubation. (2) A count of those organisms which develop on standard agar-agar at a temperature of 37 deg. C. during two days' incubation. (3) Qualitative and quantitative tests for *B. coli* in quantities of water up to 100 c.c. (4) Qualitative and quantitative tests for faecal and other streptococci. (5) Qualitative and quantitative tests for spores of *B. welchii*. (6) A record of the presence or absence of *B. coli* variants and special organisms such as *B. filamentosus*, etc.

In deep wells or borings the water should be, and generally is, of great natural purity. This is found to be so, even in the neighbourhood of big towns and in the London area. The strata from which these deep borings are supplied produces a practically sterile water and any water that may have come more directly from the surface is always so well filtered naturally that all micro-organisms are removed from it before it reaches the collecting basin deep underground. These waters are naturally pure and require no treatment except during those periods when work is being carried on in headings and adits. It is then usual to chlorinate the water as a temporary measure. Shallow wells can seldom, in their bacterial content, compare favourably with deep borings.

Report on samples of water received from Gravesend and Milton Water Works Co., Ltd., The following samples were received:—(a) A sample from the Old Well; (2) a sample from the Northfleet Well. Both these were, chemically and bacteriologically, of the highest quality. Both had, when cold, a moderate action on iron, an appreciable amount being kept in solution. The action of both on zinc was strong, on copper very slight and, on lead, practically none.

Analytical Details.

	<i>Old Well.</i>	<i>Northfleet Well.</i>
Appearance	Clear	Clear
Colour	Pale bluish	Pale bluish
Smell	None	None
Deposit	None	None
Phosphoric acid	Very minute trace	Very minute trace
Hardness before boiling	22 $\frac{1}{4}$ degrees Clark	20 $\frac{1}{4}$ degrees Clark.
Hardness after boiling	5 degrees.	3 $\frac{1}{2}$ degrees
Colour of residue	White	White
Behaviour on ignition	Darkens very slightly	Does not darken.

Grains per gallon.

Total dry residue	30.52	24.08
Oxygen absorbed	0.006	0.008
Chlorine	1.82	1.12
Nitric acid	3.36	1.24
Ammonia	0.0000	0.0000
Albuminoid ammonia	0.0011	0.0000
Free carbonic acid (Co ₂)	2.77	2.16

Bacteriological Examinations.

Total on gelatine per c.c.o	0
B.Coli absent in	76 c.c.

Action on metals when cold.

Iron	Moderate	Moderate
Zinc	Strong	Strong
Copper	Very slight	Very slight
Lead	Minute	Minute

SEWERAGE AND DRAINAGE.**Scavenging.**

House refuse is removed at least once in seven days by men employed by the Council under the supervision of the Sanitary Inspector, to a suitable site owned by the Council where it is covered each day with sufficient earth. Nearly all the work is done by two motor lorries, but in some parts a horsed cart is necessary.

Sewerage.

The main drainage scheme is completed and nearly all the houses are now connected to the main sewers. In a short time the whole of the district will be sewered with the exception of a few houses which are situated in the strictly rural portion.

When discharge into the sea is not practicable, as in Northfleet, local authorities have to make some arrangement for the purification of their sewage. Whatever method is adopted, the final effluent may have to be discharged into a stream of some sort, and certain standards have been fixed which determine the degree of purification necessary. The Sewage Commissioners at the 8th Royal Commission suggested that :—

1. No sewage effluent should contain more than 3 parts of suspended solids per 100,000.
2. No sewage effluent should absorb more than 2 parts by weight of dissolved oxygen per 100,000 in 5 days at 18° C., and the stream after receiving the effluent should not absorb more than 0.4 part in the same time.

Certain important exceptions were made, depending on the size of the stream receiving the effluent.

1. When the stream is from 150 to 300 times the volume of the effluent, the standard of dissolved oxygen may be neglected, but the suspended solids should not exceed 6 parts per 100,000.
2. When the stream is from 300 to 500 times the volume of the effluent, solids in suspension should not exceed 15 parts. Ordinary sedimentation tanks would ensure this.
3. When the stream is more than 500 times the volume of the effluent all tests may be neglected, and the only treatment necessary is screening to remove the larger solid matters.

The aim of the two tests recommended by the Commission is to gauge the putrescibility and de-aerating power of the effluent and the possibility of a stream becoming silted up by an excessive amount of solids discharged into it. "Bad effluents in time cause a nuisance in the streams receiving them, the growth of sewage fungus is encouraged, and fish life endangered. As many of our towns draw their water supply from rivers, all precautions should be taken to prevent pollution whenever possible. The pollution of streams by trade wastes is receiving more and more attention. In a report of the Ministry of Agriculture and Fisheries, 1926, it is suggested that there should be a central authority to hold the scales between the various interests concerned; and to be charged with the preservation of one of our greatest national assets—pure water."

Lab. Ref. 7360/1d.

On the 3rd instant I received from you a sample of Effluent taken from discharge at the Northfleet Sewage Works, Brookvale, and also a sample of Water taken 900 yards from discharge. I have examined these samples and obtained the following results which are expressed in parts per 100,000:—

			<i>Effluent.</i>	<i>Stream Water.</i>
Total dissolved solids	...	...	132.0	166.5
Total suspended solids	...	...	2.25	2.0
Organic suspended solids	...	...	1.75	1.25
Chlorine ...	...	...	34.1	54.1
Free ammonia ...	...	...	4.78	2.72
Albuminoid ammonia	...	...	0.408	0.13
Oxygen absorbed (acid permanganate) $\frac{1}{4}$ hr.			1.20	0.528
" " " " 4 hrs.			2.07	1.11
Nitrogen as nitrates	...	...	2.5	1.43
" " nitrites	...	...	Trace	Trace
Dissolved oxygen requirement in 5 days...			4.39	0.30

The effluent was somewhat turbid and it had a bad odour. The quality of the effluent is very bad.

The stream water shows evidence of considerable contamination with sewage matter. The quality of the stream water is unsatisfactory.

Yours faithfully,

F. W. F. ARNAUD,
County Analyst.

THE DISTRICT SURVEYOR (MR. J. A. MITCHELL) REPORTS :—

During the year analyses of the sewage effluent showed a distinct falling off in quality and in consequence of which I reported to the Council as follows on the 25th January last :—

“ I have considered the report of the County Analyst dated the 11th January, 1938, and compared it with the last analysis. The suspended and dissolved solids are lower and therefore satisfactory but free ammonia has increased from 0.42 to 4.78, albuminoid ammonia from 0.14 to 0.408 and the oxygen absorbed from 0.587 to 1.20 $\frac{1}{4}$ hour), 1.06 to 2.07 (4 hours) and 1.47 to 4.39 (5 days) The nitrification has decreased from 7.0 to 2.5.

The reason for the falling off in the quality of the effluent is quite clear as it shows that the filters were not properly dealing with the tank effluent now applied to them. The peak dry weather flow when the samples were taken was at the rate of about 700,000 gallons per day showing a small increase over the peak flow a year ago which would account for the additional connections made to the system and by the tendency of the population to increase the consumption of water.

The remedy is to reduce the rate of flow over the filters which I have already done as far as possible with good effect and the effluent is now almost back to its old high standard.

The total area of filters is not however quite sufficient to deal with the lower rate of application at peak discharge and I therefore recommend that the remaining spare filter be now filled with media and be fitted up with its distributor. This will enable the peak flow to be given full filter treatment and restore completely the quality of the effluent. A factor in addition to the slight natural increases of flow of sewage through the Works that has affected the filters is that the tank effluent since the scumming has been carried out, has changed, due to a reduction of septic action. The tank effluent is now almost fresh sewage and to successfully deal with this on the filters, a lower rate of application is necessary. This has been done so far as the existing filter capacity will permit. When I was instructed to have the settlement tanks regularly scummed, I pointed out that the nature of the tank effluent might be changed and this has proved to be the case. Not only is the effluent different but the sludge has also changed being now less broken down and containing colloidal matter in a form which makes it difficult to get through the sludge pumps unless much more water is added to it. This results in more water being pumped onto the sludge drying beds giving them more work to do at a time when the Works already lack sludge drying capacity. By restoring some septic action in the settlement tanks, the tank effluent could be applied at a higher rate to the filters and the sludge would be improved but as this would probably take six months or more, I recommend that filters should be made to do the work by increasing the capacity as indicated above. In any case the putting into use of the remaining filter must soon be done.

The cost, subject to competitive tenders, of putting the last filter into a condition for use would be about £700.

The order in which the filters have been brought into use are :—

Opening of Works	3
May, 1933	... 3
July, 1934	... 2

In each case the adjustment was made when the quality of the effluent showed signs of falling off.

Sewage Contamination.

Arising from certain reports, I caused in November the Ebbsfleet stream to be inspected and issued the following report to the Council :—

“ At your request, I examined the Ebbsfleet stream and banks and report as follows :—

1. The dam erected to prevent the escape of sewage effluent to the springs at Springhead is leaking rather badly. The water is flowing towards Springhead for a distance of about 20 yards, when it disappears into the ground. Watercress is growing in this water, and there is evidence that the same had recently been cut.
2. Approximately half-way between Springhead and the dam other watercress is growing, and being gathered.
3. Large quantities of watercress are growing in the stream below the entry of the A.P.C.M. pump water.
4. Watercress is growing in the residual water at the bottom of the nearby Chalk Pit. This is gathered locally.

I interviewed the owner of the Springhead Gardens, who stated that he did not cultivate any watercress at Springhead, but he thought that the gathering of uncultivated watercress along the stream should be stopped.

It is obvious that cress is growing and being gathered from water polluted with sewage effluent, and therefore I recommend :—

1. That notices be placed along the banks between the works and the outfall, pointing out that sewage effluent is in the stream and the danger of gathering the cress.
2. The dam should be made watertight and a watch kept on the weirs to stop the back-flow of water to Springhead.
3. That notices be put in the local press.
4. That the A.P.C.M. Co., be asked to warn their employees of the danger.”

The recommendations were carried out and in addition the stream was cleared of growing watercress.

List of Bye-Laws in force in District.

Advertisement Regulations Act, 1925.
 Cemetery.
 Hackney Carriages.
 New Streets and Buildings.
 Nuisances.
 Parks and Pleasure Grounds.
 Slaughterhouses.
 Tents, Vans, Sheds and similar structures.
 There are no local Acts.

INSPECTION AND SUPERVISION OF FOOD.

Milk Supply.

All milkshops, dairies, cowsheds, bakehouses, workshops and slaughterhouses are visited at least twice a year by the Sanitary Inspector and myself.

Most of the milk is imported from other districts. There is only one dairy farm in the District, which has a good water supply.

Two samples of ordinary milk were submitted for bacteriological examination, one of which was reported unsatisfactory. The producer's premises were inspected, and advice was given

Tuberculosis Order, 1925.

Two samples of milk were examined by the inoculation test for the presence of Tubercle bacilli. Both samples were returned as negative.

Provision of Milk for School Children.

Under this Scheme the price of milk consumed in schools by young children, is reduced to one shilling per gallon, thus enabling it to be supplied to children at $\frac{1}{2}$ d. for one-third of a pint, instead of 1d. as hitherto. The milk will, whenever possible, be supplied in bottles containing one-third of a pint.

The scheme continues to operate satisfactorily. During 1937, 38 samples of school milk were submitted for the bacteriological test for cleanliness; 31 were returned as satisfactory. Investigations were made at the dairy concerned in the 7 unsatisfactory samples, various recommendations were made *re* the storage and distribution of this milk.

Slaughter Houses.

There are 8 Slaughter Houses in the District, which have been regularly inspected. Your Sanitary Officers visits them at times of killing. The condition of these places is, on the whole, satisfactory.

PRIVATE SLAUGHTER HOUSES IN USE IN THE DISTRICT.

		In 1920	In January, 1926	In December, 1937
Registered	...	4	4	4
Licensed	...	3	3	4
Total	...	7	7	8

Carcases Inspected and Condemned.

	<i>Cattle including Cows.</i>	<i>Calves.</i>	<i>Sheep and Lamb.</i>	<i>Pigs.</i>
Number killed (if known) ...	308	59	763	947
Number inspected ...	308	51	654	912
All diseases except Tuberculosis—				
Whole carcasses condemned ...	—	—	—	—
Carcases of which some part or organ was condemned	23	—	2	15
Percentage of the number inspected affected with disease other than Tuber- culosis ...	7.8%		0.3%	1.6%
Tuberculosis only—				
Whole carcass condemned	3	—	—	1
Carcases of which some part or organ was condemned	39	1	—	9
Percentage of the number inspected affected with Tuberculosis ...	13.6%	2%		1.1%

Food and Drugs (Adulteration) Act, 1938.

This Act is administered by the County Council, and I am indebted to Mr. J. Chamberlain, Dartford, for the following particulars :—

<i>Description of Sample.</i>	<i>No. of Samples Taken.</i>	<i>Result of Analysis.</i>	<i>Prosecutions.</i>
New Milk ...	20	Genuine	Nil
Coffee ...	2	„	„
Flour ...	2	„	„
Cocoa ...	1	„	„
Margarine ...	2	„	„
Lard ...	1	„	„
Sugar ...	1	„	„
Whiskey ...	1	„	„
Gin ...	2	„	„
Rum ...	1	„	„
Sponge Mixture ...	1	„	„
Barley Kernals ...	1	„	„
Grape Nut Flakes ...	1	„	„
Mustard ...	1	„	„
Shredded Suet ...	1	„	„
Ground Cinnamon ...	1	„	„
Rice ...	2	„	„
Mixed Dried Fruit ...	1	„	„
Totals ...	42	42	Nil

Bakehouses.

There are 7 in the District, two of which are underground bakehouses. They have all been systematically inspected and usually found fairly in a satisfactory condition.

Common Lodging Houses.

There are none in the District.

Swimming Bath.

Ministry of Health,
Whitehall, S.W. 1.
1st November, 1935.

SWIMMING BATHS AND POOLS.

“ I am directed by the Minister of Health to emphasize the opportunity afforded by the coming winter months to take any necessary steps for ensuring a proper standard of cleanliness and purity of water in swimming baths and pools, and to draw attention again to the report on “ The Purification of the Water of Swimming Baths ” prepared by the Ministry of Health and published in 1929 by H.M. Stationery Office, from whom copies may be obtained directly or through any bookseller (price 1s. net).

The increased use of swimming baths and pools has made it all the more necessary that local authorities should see that the water is kept at a proper standard of cleanliness and purity. Where the sanction of the Minister is required to loans for baths or pools, care is always taken that any necessary plant for this purpose is provided. Plant will not do its work, however, unless it is properly maintained and used. Information which has reached the Ministry shows that great improvement has been effected, but more is needed and local authorities and private owners of baths or pools should thoroughly inspect the present arrangements.

The report of 1929 states that the requisite degree of purity can best be maintained by efficient continuous filtration combined with continuous and accurately controlled chlorination (other equally effective means of sterilization can be used, if desired, in place of chlorination). The need for properly qualified supervision is emphasized, and the keeping of a detailed daily record of the performance of the filtration and sterilization plant is recommended. Standards are laid down for clarity, alkalinity of filtrate, aeration and chlorine content (pp.46 and 51).

The recommendations made in the report apply to all swimming baths and pools open to the public, whether owned by the Local Authority or by private persons, and their application is strongly recommended."

Mr. B. L. Lelliott, Chief Welfare Officer of the Associated Portland Cement Manufacturers, Ltd., and British Portland Cement Manufacturers, Ltd., reports as follows :—

"Cement Works Swimming Bath. This Bath was re-conditioned for the use of employees and residents of the district by the above Companies in 1927, and is situate in Hive Lane, off High Street, Northfleet. It is a tepid fresh water bath, 80ft. long, and 30ft. wide, graduating in depth from 3ft. 6ins. to 7ft. Diving boards 3ft. to 12ft., spring and fixed, are provided.

Until 1933 the water was supplied from deep wells situated near the Bath, but owing to the length of time involved in cleaning out and refilling once per week, a purification plant was installed in 1934. This plant was put in by Bell Bros., and purifies and aerates the whole of the water once every six hours.

Filtration and purification is carried out by a pressure filter and the addition of sulphate of alimina, alkali and chlorine. An 8ft. diameter pressure filter is provided which is capable of withstanding a test of 120 pounds per square inch, the filtering medium being silver sand. Sulphate of alumina solution and alkali are added by means of pumps before filtration, the chlorine is then added in the form of solution after filtration. Aeration takes place by means of a cascade.

The sides and bottom of the Bath are cleaned daily whilst the surround is cleaned with a solution of Voxsan. Tests of the water for the purpose of regulating the dosage of chemicals are taken periodically daily.

The apparatus installed has proved exceedingly efficient, and no complaints have been received regarding the condition of the water since its installation."

Report of Sample of Water.

Description of Sample.	No. of organisms per c.c. capable of growth on Agar at :		B. coli (presumptive)
	37° C.	22°C.	
A.21069 Water from Swimming Bath, Hive Lane, Northfleet. (Shallow end)	1920	2280	Absent in 100ccs.
A.21070 Water from Swimming Bath Hive Lane, Northfleet. (Deep end)	11	47	Absent in 100ccs.

Remarks: A.21069. The high bacterial content indicates that the chlorination could be improved

A.21070. Good water.

E. R. JONES,
Pathologist.

HOUSING.

Number of new houses erected during the year :—

(a) Total	...	...	...	...	...	51
(i) By the Local Authority	...	...	...	...	...	Nil.
(ii) By other bodies or persons	...	...	...	...	...	51

1. Inspection of dwelling-houses during the year :—

(1) (a)	Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	322
(b)	Number of inspections made for the purpose	...	...	...	1406
(2) (a)	Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	...	...	...	276
(b)	Number of inspections made for the purpose	...	...	...	965
(3)	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	110
(4)	Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	...	...	...	166

2. Remedy of defects during the year without service of formal Notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	...	216
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3. Action under Statutory Powers during the year :—

(a)	Proceedings under sections 9, 10 and 16 of the Housing Act, 1936 :—	
(1)	Number of dwelling-houses in respect of which notices were served requiring repairs	27
(2)	Number of dwelling-houses which were rendered fit after service of formal notices :	
(a)	By owners	25
(b)	By Local Authority in default of owners	2
(b)	Proceedings under Public Health Acts :—	
(1)	Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	8
(2)	Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a)	By owners	8
(b)	By Local Authority in default of owners	Nil.
(c)	Proceedings under sections 11 and 13 of the Housing Act, 1936 :—	
(1)	Number of dwelling-houses in respect of which Demolition Orders were made	Nil.

	Number of houses demolished voluntarily	Nil.
(2)	Number of dwelling-houses demolished in pursuance of Demolition Orders ...	Nil.
(d)	Proceedings under section 12 of the Housing Act, 1936 :—	
(1)	Number of separate tenements or underground rooms in respect of which Closing Orders were made	Nil.
(2)	Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	Nil.

a. Housing Act, 1936—Overcrowding.

(a)	1.	Number of dwellinghouses overcrowded at end of the year	28
	2.	Number of families dwelling therein ...	28
	3.	Number of persons dwelling therein ...	248
(b)		Number of new cases of overcrowding reported during the year	6
(c)	1.	Number of cases of overcrowding relieved during the year	4
	2.	Number of persons concerned in such cases	22
(d)		Particulars of any cases in which dwellinghouses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	Nil.

During the year the following were represented as areas which should be dealt with as Clearance Areas :—

<i>Area No.</i>	<i>Premises.</i>	<i>No. of houses.</i>	<i>No. of persons displaced.</i>
1	3 to 8, Wycliffe Road ...	6	15
2	17 to 23, „ „ ...	7	22
3	28a to 33, „ „ ...	7	20
4	4 & 5, Walnut Tree Place ...	2	12
5	10 & 12, Cooper's Road ...	2	9
6	13 & 14, Fiveash Road ...	2	5
7	33 to 47, Shepherd Street ...	8	24
8	114 to 120, „ „ ...	4	8
9	14, 15, 16, Tooley Street and 39 to 45, Buckingham Rd.	10	40
10	46 to 51, „ „	6	13
11	25 to 28, Stonebridge Road	4	7
12	33 and 33a, „ „	2	4
13	17 to 20a, The Hill ...	5	10
14	15 to 29, The Shore ...	13	76
15	5 to 28, Dock Row ...	24	112
16	3 to 10, Coldharbour Road	8	13
Total		110	390

Objections were received from owners in respect of 10 areas and a Public Inquiry held in November by the Ministry of Health. All the Orders were confirmed except No. 13 in respect of which an undertaking was accepted.

In order to assist the Council in determining the number of houses required to accommodate the people displaced from the proposed Clearance Areas, I submitted the following particulars :—

1. The Council must satisfy the Ministry of Health that they are able to rehouse the persons displaced ;
2. The Ministry of Health are prepared to grant a subsidy of £2 5s. od. per person per annum for a period of forty years (provided that the Clearance Areas are confirmed before 1st October, 1937, and that the houses are completed by 31st March, 1938) ;
3. In the proposed sixteen Clearance Areas, there are 110 houses, which are at present occupied by 108 separate families (3 houses and 2 flats being vacant). These families vary from one to fifteen persons and total 389 persons.

The following table shows the families divided into numerical groups and the type of house necessary to rehouse them :—

<i>No. of families.</i>	<i>No of persons in family.</i>	<i>No and type of house required for rehousing.</i>
13	1	13 one bedroom type
32	2 }	70 two bedroom type.
15	3 }	
23	4 }	
10	5	10 three bedroom type.
4	6 }	9 four bedroom type.
5	7 }	
2	9 }	4 five bedroom type.
1	10 }	
1	11 }	
1	13 }	2 six bedroom type.
1	15 }	
108		108

It will be seen that a majority of the families consist of four or less persons and can be rehoused in the two bedroom type house. To build 70 houses of so small a type may not be an economical proposition, and as it is probable that some families will find their own alternative accommodation, I suggest that the following number of houses would be sufficient :—

	40	two bedroom type.
	36	three bedroom type.
	10	four bedroom type.
	4	five bedroom type.
	2	six bedroom type
Total	<hr/> 92	houses. <hr/>

According to the Ministry of Health standard for rehousing, the above houses would provide accommodation for 400 persons and should be accepted by them as a suitable rehousing programme.

The Council have now secured sufficient land to build the houses necessary to rehouse the displaced persons and the over-crowded families.

Eradication of Bed Bugs.

	<i>Council.</i>	<i>Others.</i>
1. (a) No. of houses found to be infested	3	17
(b) No of houses disinfested ...	3	17

2. Methods employed :—

(a) Spraying with insecticide.

(b) Fumigation with “ Cimex ” sulphur block.

In either method the woodwork in the room is loosened and a floor board removed. A second visit is made 10 days after the first disinfestation and further action taken if necessary. I am pleased to say that there has been no re-infestation of the houses treated.

3. A careful examination is made of a selected tenant's furniture and disinfestation carried out where necessary.

4. Disinfestation carried out by Local Authority under the supervision of the Chief Sanitary Inspector.

FACTORIES, WORKSHOPS AND WORKPLACES.

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspector or Inspector of Nuisances

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Occupiers Prosecuted (4)
FACTORIES (Including Factory Laundries)	14	...	...
WORKSHOPS (Including Workshop Laundries)	83	...	...
WORKPLACES (Other than Outworkers' premises)	463	...	...
Total	560	...	Nil.

2.—Defects found in Factories, Workshops and Workplaces.

Particulars. (1)	No. of Defects.			Number of offences in respect of which Prosecutions were inst'd (5)
	Found (2)	Re-medied (3)	Referred to. H.M. Inspector (4)	
<i>Nuisances under Public Health Acts :—*</i>				
Want of cleanliness ...	3	3	...	...
Want of ventilation ...	...	...	...	...
Overcrowding ...	...	...	...	...
Want of drainage of floors ...	...	...	...	...
Other nuisances ...	...	...	...	...
Sanitary (insufficient	4	3	...	...
Accom- { unsuitable or defective	...	...	...	...
modation { not separate for sexes	...	...	...	...
<i>Offences under Factory and Workshop Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101) ...	...	...	...	...
Other offences ...	2	2	...	...
(Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921). ...	...	...	...	...
Total ...	9	8	...	...

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

M. F. McDONNELL,
Medical Officer of Health.

**REPORT OF MEDICAL OFFICER OF MATERNITY AND
CHILD WELFARE CLINIC AND ANTE-NATAL CLINIC,
FOR THE YEAR, 1937.**

**To the Chairman and Members of the Northfleet Urban
District Council.**

MR. CHAIRMAN, MRS. LANE AND GENTLEMEN,

I am happy to inform you that your Child Welfare Clinic continues to enjoy a very considerable popularity, thanks to your support and the good services of the Health Visitor. I am sure that the present high standard of health among the infant population and the smallness of the mortality rate, in the district, is in no small measure due to the provisions you have made for the care and attention of the children in the area.

It gives me great pleasure to state that the attendances at the Clinic during the year have been excellent. The total number of children seen has been 2,822, which gives an average attendance of 54 at each Clinic. These figures were considered by the Ministry of Health's Inspector, who recently visited us, to be considerably above the average, and he very favourably commended our efforts.

It will perhaps be necessary to bear in mind that, since a new housing scheme is being contemplated in the outlying portion of the district, some provision may have to be made in a central area for future expansion of your Child Welfare Services.

There is also an outlying portion of Northfleet in the agricultural area, where our services would be useful, and I should like your co-operation in the solution of this matter.

The Clinics continue to be held bi-weekly—1½ hour sessions on Mondays and Thursdays—and, in addition, the Health Visitor is in attendance daily to assist mothers and to dispense food. The provision of free milk to necessitous cases under the regulations of the Ministry of Health is continued, and I know proves a great boon to many. Under the present arrangements there is no excuse for any child in Northfleet to be suffering from malnutrition.

I record with great pleasure, my appreciation of the help I receive from the Ladies Committee.

The Ante-Natal Clinic is held one day each week for one hour. The attendances at this Clinic are still small, but show considerable signs of improvement compared with former years. I hope that still more expectant mothers will avail themselves of the advice and services provided by this very necessary and helpful branch of our Social Services. During the year 19 expectant mothers came for advice, the total attendances being 49.

I have the honour to be,

Mr. Chairman, Mrs. Lane and Gentlemen,

Your obedient Servant,

JAMES CRAWFORD, M.B., Ch.B.

REPORT OF THE HEALTH VISITOR FOR THE YEAR, 1937.

MR. CHAIRMAN, MRS. LANE AND GENTLEMEN,

I have pleasure in presenting my report for the year, 1937.

Having only commenced duties in June, the figures, *re* visits, etc., are only for the latter part of the year.

Infant Welfare.

During the year 311 live births were registered and 11 still births. All mothers and infants are visited after the fourteenth day.

Investigations are made *re* still births and the facts reported to the Medical Officer.

Advice *re* feeding and care of the infant is given and the facilities of the clinic offered.

Clinics.

I am pleased to report that the use of the clinic has grown during the year—there being 500 more attendances than during the last year. Owing to the increase in numbers attending, it was found necessary to have an extra clinic on Tuesday afternoons.

Ante-Natal.

The attendances at the Ante-Natal Clinic have been small in number but during the latter part of the year have increased owing to the activities of the County midwives.

Frequent visits are paid to the expectant mothers in their houses.

Foster Children.

The homes of the four foster children are visited frequently and all found satisfactory.

Visits.

The following visits were made :—

First visits	...	...	149
Revisits under 1 year	...	...	431
„ 1 to 5 years	...	...	442
Special visits	...	...	100
			<hr/>
Total	...	...	1,122
			<hr/>

I am,

Your obedient Servant,

M. P. MULLENDER.

ANNUAL REPORT OF THE CHIEF SANITARY INSPECTOR FOR THE YEAR 1936.

Sanitary Inspector's Office,
Council Offices,
Northfleet.

To the Chairman and Members of the Northfleet Urban
District Council.

MADAM AND GENTLEMEN,

I have pleasure in submitting my second Annual Report, which is a resume of the work carried out during the year 1937.

In commencing this report it may be of interest to outline some of the duties as laid down by the Ministry of Health. These comprise :—

General inspection of the Urban District.
Inspections under the Housing Acts.
Investigation of all cases of infectious disease.
Disinfection of all bedding, clothing and infected rooms.
Inspection of Food Premises, such as those of Bakers, Grocers, Butchers, Fruiterers, Fishmongers and Fryers, Restaurants, Dairies, Cowsheds, Milkshops and Hawkers' carts.
Inspection of Slaughterhouses, Piggeries, Stables and Offensive Trades.
Inspection of Factories, Workshops and Workplaces.
Smoke observations.
Inspection of Meat and other Foods.
Sampling of drinking water, bath water, etc.
Investigation of complaints.
Interviewing of builders and owners of property concerning sanitary work.

Other duties are :—

All clerical work necessary for the above.

Administration and supervision of the Cleansing Department.

The number of complaints received during the year was 216, a number of which were of a trivial nature, and could not be dealt with under the Public Health Acts. In every case where a complaint was found to be *bona-fide*, action was duly taken.

Total number of visits made	...	...	...	4,321
Preliminary notices served	...	...	...	198
Statutory notices served	...	...	...	35

The following table gives a classified list of the nuisances and defects dealt with during the year :—

Accumulations of offensive matter	...	...	...	3
Cesspools repaired or filled	...	...	...	4
Dampness abated	...	...	...	43
Dangerous structures	...	...	...	2
Drains reconstructed	...	...	...	8
„ cleared	...	...	...	107
Defective Chimneys	...	...	...	26
„ Doors	...	...	...	60
„ Door sills	...	...	...	35
„ Eavesgutters and fall pipes	...	...	...	67
„ Floors	...	...	...	62
„ Locks and fastenings	...	...	...	42
„ Plasterwork	...	...	...	197
„ Matchboarding	...	...	...	8
„ Pointing	...	...	...	97
„ Rendering and plinths	...	...	...	64
„ Roofs	...	...	...	81
„ Sashcords	...	...	...	47
„ Ventilation shafts	...	...	...	10
„ Walls	...	...	...	11
„ Wash coppers	...	...	...	13
„ W.C. structures	...	...	...	4
„ Water fittings	...	...	...	12
„ Windows—lack of light or ventilation	...	...	...	11
„ Window sills	...	...	...	49
„ Window frames and sashes	...	...	...	127
„ Yard gullies and gully pits	...	...	...	15
„ Yard paving	...	...	...	34
Food Stores—repaired or provided	...	...	...	24
Premises limewashed	...	...	...	38
New flushing arrangements	...	...	...	4
„ Sanitary dustbins	...	...	...	19
„ Sinks and sink waste pipes	...	...	...	23
„ Stoves for food preparation	...	...	...	16
„ „ for heating	...	...	...	46
„ W.C. pans and traps	...	...	...	6
Rooms stripped, cleansed and redecorated	...	...	...	188
Under-floor ventilation	...	...	...	34
Unlit staircases	...	...	...	11
Vermin infestation	...	...	...	15
W.C's—lack of	...	...	...	4
Miscellaneous	...	...	...	26
Total number of defects dealt with during the year				1,693

Infection and Disinfection.

During the year 57 cases of infectious disease were investigated, viz. :—

Scarlet Fever	...	...	...	...	...	23
Tuberculosis	...	...	...	...	...	21
Other diseases	...	...	...	...	...	13

Information gained as a result of inquiry into these cases is submitted to the Medical Officer of Health, and dealt with according to his instructions.

Disinfection is carried out by spraying the rooms with formalin and fumigating with formalin gas; infected bedding and clothing are treated with steam at the Brook Vale Depot.

During the year 98 houses and 860 articles were disinfected and 56 articles destroyed.

Food Inspection.

During the year, 630 visits were made to slaughterhouses and 126 visits to premises where food is prepared or sold.

There are 8 slaughterhouses in the district, 4 being registered and the rest licensed. Slaughtering takes place on three days per week, and I am pleased to report that the general cleanliness is good.

During the year, 5463 lbs. of meat were voluntarily surrendered and condemned as unfit for human food. Inspections were carried out in accordance with the terms of Memorandum 62 (Foods).

In connection with the inspection of food, it was found necessary to report the following contraventions of the various Acts.

1. Failing to use a mechanical instrument for the stunning of animals.
2. Removal of diseased meat from the slaughterhouse after inspection and detention.
3. Preparing for sale diseased meat.

The Council in each case issued a severe warning.

To assist the butchers and slaughtermen, I circulated a pamphlet giving extracts from the various Acts and Regulations concerning the meat trade.

The following table shows the diseases and details of the meat condemned.

DETAILS OF MEAT CONDEMNED DURING 1937.

DISEASE.	CATTLE										Pigs			Weight in lbs.		
	Car-cases	Fore-quar-ters	Head and Ton-gues	Hearts	Lungs	Livers	Skirts	Kid-neys	Other Offals	Joints	Calves	Sheep	Car-cases		Heads	Offals
Tuberculosis	3	6	16	29	29	9	5	—	4	—	1	—	1	7	2	4610
Actinomycosis	—	—	10	1	1	—	—	—	—	—	—	—	—	—	—	374
Abscesses	—	—	—	—	—	5	1	—	—	—	—	1	—	—	1	78
Angiomatosis	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	49
Distoma	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	48
Malignant tumours	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	35
Cirrhosis	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	14
Necrosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	18
Pleurisy	—	—	—	3	3	—	—	—	—	—	—	—	—	—	6	55
Pericarditis	—	—	—	1	—	—	—	—	—	—	—	—	—	—	3	10
Peritonitis	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	20
Nephritis	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	4
Cysts	—	—	—	—	—	—	—	—	—	—	—	1	—	—	2	8
Unsound	—	—	—	—	—	—	—	—	—	2 (froz'n)	—	—	—	—	—	113
Totals	3	6	26	36	35	24	7	2	4	2	1	2	1	7	20	5436

Dairies, Cowsheds and Milkshops.

There are 24 persons registered for the carrying on of such businesses, viz. :—

Cowkeepers ...	...	...	...	1
Dairymen ...	...	...	...	14
Milkshops (bottled milk only)	...	...	...	6
Sterilized milk (wholesale)	...	...	...	3

Designated Milk.

Three dairymen are licensed to sell " Certified " milk (bottled outside the district), and 1 " Pasteurised " milk.

Bakehouses.

Fourteen visits were made to the 7 bakehouses on the register, limewashing is carried out regularly and I am pleased to report that the general cleanliness is good.

Rats and Mice Destruction Act, 1919.

During the year, 48 tins of poison were distributed to persons for premises where traces of rats were in evidence. Advice and caution as to the laying of baits are given in each case.

Poisoned baits and Cyanogas are regularly used at the refuse tip, the large number of banks and ditches surrounding the tip making the extermination of rats a difficult and constant task.

Public Health Act, 1936, Section 154.

Under the above section, three successful prosecutions were taken against persons exchanging toys and other articles for rags, etc., from children.

Caravans, Tents and Sheds.

There are two permanent encampments of caravans in the district. Both sites are supplied with water by means of stand pipes and the conveniences, separate for males and females, are connected to the sewers. Forty visits were made to the sites during the year and no nuisances noted.

Stables.

During the year, 23 visits were made to premises *re* the keeping of animals. Many householders still keep chickens, etc., in their yards, and advice was given in a number of cases *re* cleanliness and the danger of rats.

Shops Acts.

It was not found possible to visit every shop in the district under the above Acts. 117 visits were made, and notices were served *re* insufficient sanitary accommodation, lighting and ventilations in 4 cases.

Drain Testing.

The water test is imposed on all new drainage work in connection with alteration to present systems or in the case of new houses. 148 tests were made during the year, while 243 visits were paid to work in progress.

Housing Acts.

During the year, the work under the above Acts have progressed favourably. House to house surveys and inspections have been made in various areas, and whole streets dealt with. It is to be regretted that opposition is met with from some of the owners as regards the standard of housing accommodation for the working classes. However, it is pleasing to report that in the majority of cases the work has been completed without the service of statutory notices. The number of houses made fit exceeds 200, whilst over 900 visits were made and 98 interviews granted to owners, agents, or builders.

Under Slum Clearance, sixteen Clearance Areas (comprising 110 houses) were represented as unfit. Objections were received in respect of 13 areas, and the Ministry of Health held an Enquiry on November 9th and 10th, resulting in the confirmation of all the Orders.

There has not been any appreciable abatement of the overcrowding in the district, owing to the lack of large houses at reasonable rents. It is hoped that this position will be relieved during the coming year, as the Council have now acquired sufficient land, both for rehousing the occupants displaced from the Clearance Areas and for the abatement of overcrowding.

Cleansing Department.

The above department was formed in October, 1936, under my direction and supervision. The duties undertaken by the department are :—

House and trade refuse collection.

„ „ „ „ disposal.

Street cleansing.

Street gully emptying.

Cesspool emptying.

The staff consists of 2 motor drivers, 17 labourers and a foreman divided as follows :—

7 Street sweepers.

4 labourers and 1 motor driver—No. 1 gang) House refuse

2 labourers and 1 motor driver—No. 2 gang) collection.

2 labourers and hired haulage—No. 3 gang—House refuse collection, gully emptying, cesspool emptying, and extra help on tip.

1 labourer—Refuse disposal.

It is now possible, after a year's continued control of the above department, to survey and analyse the results thoroughly.

Refuse Collection.—The weekly collection has been maintained from all houses except in the rural area, where the period of collection has been increased from monthly to fortnightly collections. The total weight of refuse collected amounts to 6,833 tons and the number of bins emptied was 258,449. This gives an average weight of 56 lbs. per bin. It is particularly gratifying to note that the cost per ton has decreased from 7/10 to 6/10, representing a reduction in total cost of collection from £2,413 to £2,329.

Refuse Disposal.—During the year, the site used for controlled tipping was completely covered, and a second layer commenced. The cost of disposal per ton was reduced from 1/4½ to 1/2. From April 1st, 1937, waste paper has been salvaged and sold, the total income amounting to nearly £50.

Street Cleansing.—The decision to divide the area into seven districts, with each man responsible for his own district, has proved successful. The men take a distinct pride in the condition of their areas. During the year litter bins were installed on lamp posts, etc., in various streets, and it is estimated that the Council's share of the advertising rights will be £10 per annum.

Gully Emptying.—Horses and tumbers are still used in this service, owing to the small number of gullies and their positions. By allocating two days per week to this work, it has been found possible to clear the gullies approximately every six or seven weeks. During the year, 3,027 gullies were cleared, at a cost of £173/8/4, equal to a cost of 1/1½d. per gully. This cost compares very favourably with that in other districts.

Cesspool Emptying.—The motor vacuum tank was hired on 18 occasions during the year, and 59 cesspools emptied, 89 loads being removed. The total cost amounted to £108, equivalent to approximately £1 5s. od. per load.

The following tables show the details of the work of the Cleansing Department, with the cost allocated to each branch. Comparison with last year's cost shows a reduction of £500 with, in my opinion, an increased efficiency. To further increase this efficiency without increased cost, I appeal to the public to assist, firstly by keeping the contents of their dustbins dry, secondly by separating their waste paper and depositing it by the side of the bin, thirdly by using the litter bins provided in the streets for their proper use, and lastly by remembering that the collectors are men, not machines. They have a difficult, unpleasant and arduous work to carry out, and any complaints should be addressed to myself and not to the workmen.

CLEANSING SERVICES.

Tables showing Costs for the year ending 31st March, 1938.

ITEM. Revenue Account.	I. Collection with depreciation or loan charges included or excluded.		II. Disposal with depreciation or loan charges included or excluded.		Total with depreciation or loan charges included or excluded.	
	Included.	Excluded.	Included.	Excluded.	Included.	Excluded.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
A Gross Expenditure ...	2329 1 5	2237 6 5	449 8 3	435 17 5	2778 9 8	2673 3 10
B „ Income ...	— — —	— — —	48 17 10	48 17 10	48 17 10	48 17 10
C Nett Cost ...	2329 1 5	2237 6 5	400 10 5	386 19 7	2729 11 10	2624 6 0
<i>Unit Costs.</i>						
D Nett Cost per ton ...	£ s. d. 6 10	£ s. d. 6 6 ³ / ₄	£ s. d. 1 2	£ s. d. 1 1 ³ / ₄	£ s. d. 8 0	£ s. d. 7 8 ¹ / ₄
E Nett cost per 1,000 population ...	129 3 5	124 6 0	22 5 0	21 10 0	151 8 5	145 16 0
F Nett cost per 1,000 houses or premises from which refuse is collected ...	465 16 3	447 9 3	80 2 1	77 7 11	545 18 4	524 17 2
<i>Rate Poundage.</i>						
G Nett cost, equivalent rate in the £ ...	5.531d.	5.314d.	.951d.	.919d.	6.483d.	6.233d.
H Percentage of G to total rate in the £ ...	3.95%	3.795%	.679%	.656%	4.63%	4.452%
1 Total refuse collected in tons (estimated)	6,833	9 Method of Collection—	No. of Vehicles.		Percentage of refuse collected.	
2 Population ...	17,930	Horse Vehicles	1	16.6		
3 Area (Statute Acres ...)	3,770	Mechanical Vehicles	2	83.4		
4 Weight in (cwt.s.) per 1,000 population per day (365 days to year) ...	18	10 Method of Disposal—				
5 Number of houses and premises	5,115	Crude tipping	Nil			
6 Rateable Value ...	£104,267	Controlled tipping	100%			
7 Produce of a penny rate ...	£421	(i. e. on lines of Ministry's precautions for tipping)				
8 Total rates in the £ ...	11/8d.	11 Average length of haul to point of disposal	14 miles.			

CESSPOOL EMPTYING.

A	B	C	D	E	F	G	H	I
No. of days worked.	No. of loads removed.	Estimated tonnage.	Gross Cost.	Unit Costs per ton.	per load.	Per working day.	Net Cost equivalent rate in £.	Percentage of H to total rate in £.
18	89	348	£108 9 3	6/2 $\frac{3}{4}$ d.	£1 5 0	£6 0 6	.257d.	.183%

STREET CLEANSING AND GULLY EMPTYING.

Country Roads.		Scavenging.		Gully emptying.		Gross Cost.	
		£ s. d.	£ s. d.	£ s. d.	£ s. d.		
London Road	...	269 16 3	12 2 3	281 18 6	1. No. of Gullies emptied	...	3,027
Hall Road	...	128 2 1	12 0 3	140 2 4	2. Net Cost per Gully	...	1/1 $\frac{3}{4}$ d.
Dover Road	...	112 9 4	4 13 3	114 2 7	3. No. of Loads removed	...	2 ⁶⁶
Springhead Road	...	45 18 3	9 6 10	55 5 1	4. Net Cost per Load	...	13/-
Wrotham Road	...	— — —	11 1 1	11 1 1	5. Net Cost equivalent rate in the £	...	2.769d.
Totals	...	£556 5 11	£38 13 8	£594 19 7	6. Percentage of 5% to total rate in the £	..	1.977%
Other Roads	...	£536 4 0	£134 14 8	£670 18 8			
Total Cost	...	£1,092 9 11	£173 8 4	£1,265 18 3			

In conclusion, I wish to thank the Medical Officer of Health, Dr. M. F. McDonnell, the Chairman and Members of the Council and Health Committee, for their kindness, the officers and staff at the Council offices for their assistance and advice, and also Mr. E. H. C. Wadhams, Additional Sanitary Inspector, the foreman and workmen of the Cleansing Department for their loyal support and willingness to accept any innovation I have introduced.

I am,

Your obedient Servant,

G. CUNLIFFE,

Chief Sanitary Inspector.

Cleansing Superintendent.

